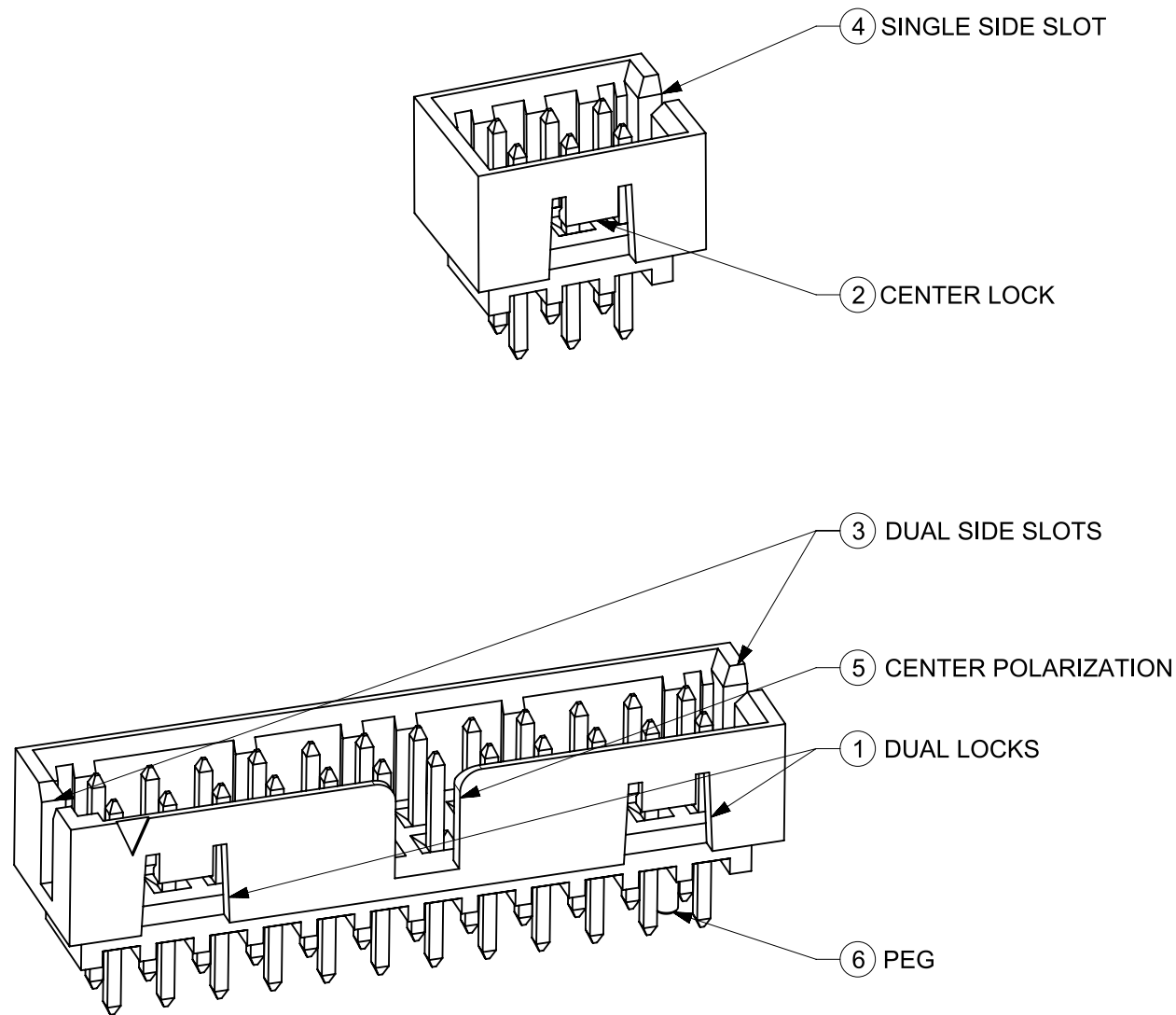


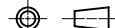
FEATURES SELECTION GUIDE



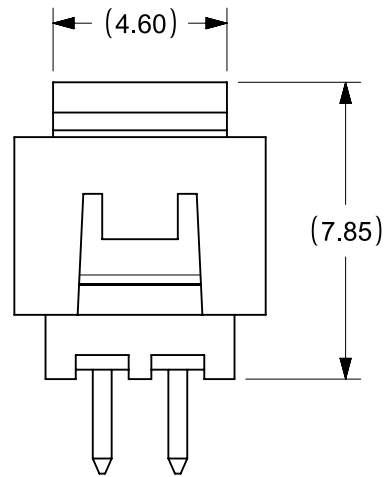
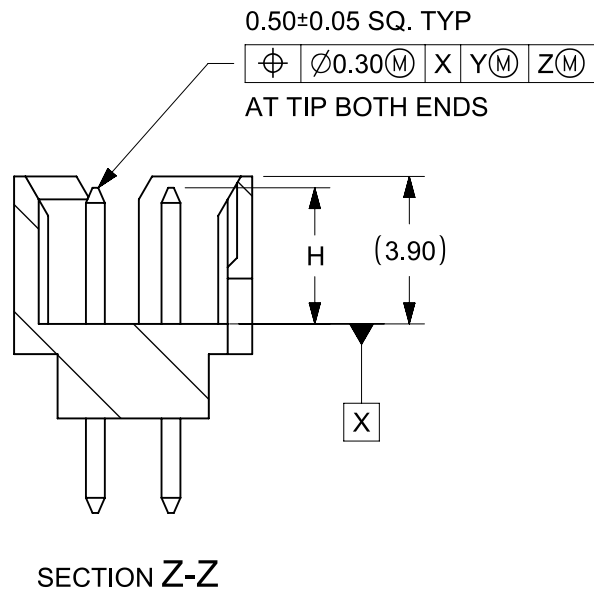
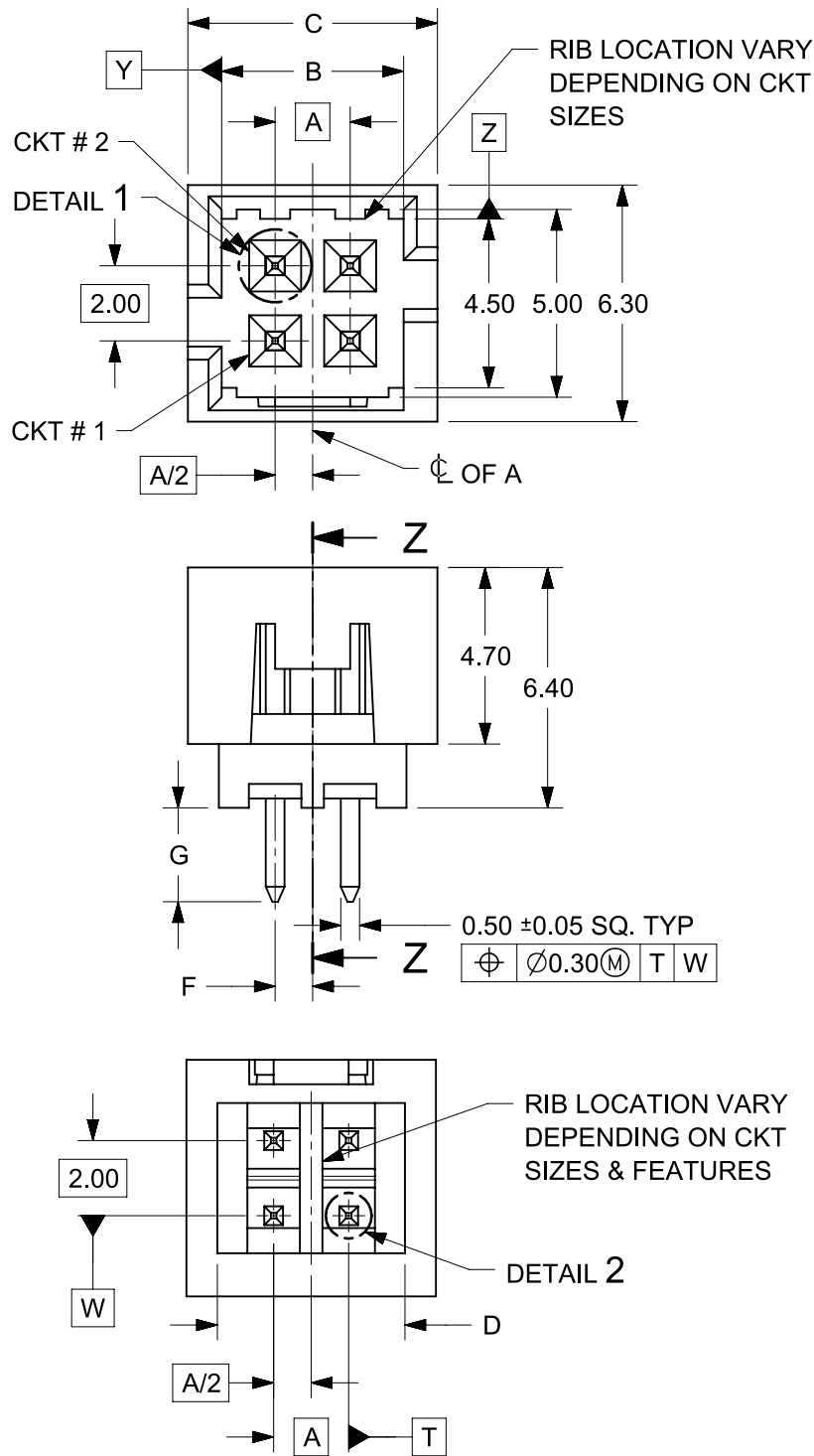
PACKAGING SPECIFICATION TABLE

TAPE AND REEL PACKAGING	PK-87831-300
TUBE STANDARD PACKAGING	PK-87831-001
TUBE NON-STANDARD PACKAGING FOR:	PK-87831-002
87831-0419 87831-0645	
87831-5141 87831-5119	
87831-0443 87831-1011	
87831-5241 87831-1420	
87831-5242	
87831-0643	

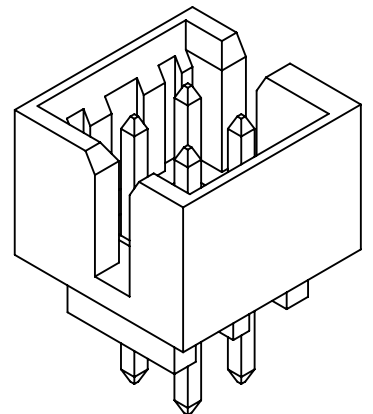
CIRCUIT SIZE		FEATURES						
		FRICTION LOCKS		SIDE SLOTS		⑤ CENTER POLARIZATION	⑥ PEG	SHEET NO
		① DUAL	② CENTER	③ DUAL	④ SINGLE			
4	N.A	N.A	YES	N.A	N.A	N.A	2 - 3	
	N.A	YES	YES	N.A	N.A	N.A		
	N.A	YES	N.A	YES	N.A	N.A		
6	N.A	N.A	YES	N.A	N.A	N.A	4 - 5	
	N.A	N.A	YES	N.A	N.A	YES		
	N.A	YES	YES	N.A	N.A	N.A		
	N.A	YES	YES	N.A	N.A	YES		
	N.A	YES	N.A	YES	N.A	N.A		
	N.A	YES	N.A	YES	N.A	YES		
	N.A	N.A	YES	N.A	YES	N.A		
8 TO 12	N.A	N.A	YES	N.A	YES	N.A	6 - 8	
	N.A	N.A	YES	N.A	YES	YES		
	N.A	YES	YES	N.A	N.A	N.A		
	N.A	YES	YES	N.A	N.A	YES		
	N.A	YES	N.A	YES	N.A	N.A		
	N.A	YES	N.A	YES	N.A	YES		
14 TO 50	YES	N.A	YES	N.A	YES	N.A	9 - 13	
	YES	N.A	YES	N.A	YES	YES		

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																	
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex									
mm		NTS															
GENERAL TOLERANCES (UNLESS SPECIFIED)								MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER									
	MM	INCH		EC NO: CO-000042098 DRWN: Meghraj Boodagatti 22-Apr-2026 CHK'D: Meghraj Boodagatti 08-Jun-2026 APPR: Saravanakumar Murugesan 08-Jun-2026 INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29				PRODUCT CUSTOMER DRAWING		DOCUMENT NUMBER SD-87831-0001		DOC TYPE PSD		DOC PART 001		REVISION A25	
4 PLACES	± 0	± 0															
3 PLACES	± 0	± 0															
2 PLACES	± 0.2	± 0															
1 PLACE	± 0	± 0															
0 PLACES	± 0	± 0															
ANGULAR TOL ± 3 °																	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER			
				A3-SIZE		87831		SEE TABLE		GENERAL MARKET		1 OF 14					

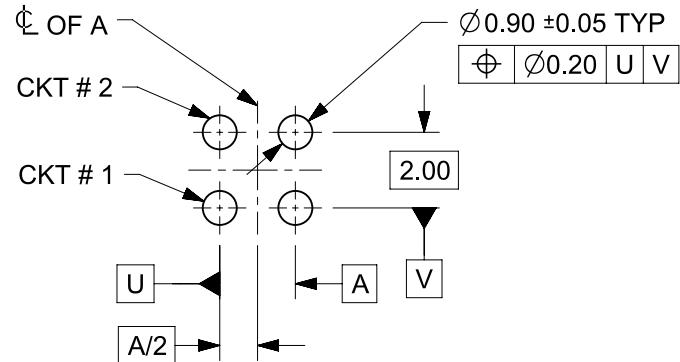
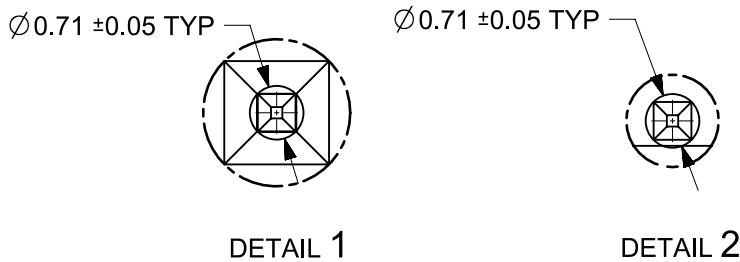
4 CIRCUITS



VIEW FOR
HEADER WITH CAP



VIEW FOR HEADER
WITH ONLY DUAL SLOTS



RECOMMENDED PCB LAYOUT

- NOTES:
1. MATERIALS:
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ. PHOSPHOR BRONZE
 2. FINISHES: REFER TO PLATING OPTIONS
 3. PRODUCT SPECIFICATION: PS-87831-027
 4. PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
 5. MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES
AND CRIMP TERMINAL: 50394 SERIES
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE:
79107 (GOLD PLATED), 78787 (TIN PLATED)

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION															
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex							
mm		NTS													
GENERAL TOLERANCES (UNLESS SPECIFIED)				MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER											
		MM	INCH												
4 PLACES	±	0	±	0	EC NO: CO-000042098 DRWN: Meghraj Boodagatti 22-Apr-2026 CHK'D: Meghraj Boodagatti 08-Jun-2026 APPR: Saravanakumar Murugesan 08-Jun-2026				PRODUCT CUSTOMER DRAWING						
3 PLACES	±	0	±	0											
2 PLACES	±	0.2	±	0											
1 PLACE	±	0	±	0	INITIAL REVISION: DRWN: GMENARLY 2015/04/15 APPR: KHLIM 2015/06/29				DOCUMENT NUMBER		DOC TYPE	DOC PART	REVISION		
0 PLACES	±	0	±	0					SD-87831-0001		PSD	001	A25		
ANGULAR TOL		± 3 °		THIRD ANGLE PROJECTION				MATERIAL NUMBER		CUSTOMER		SHEET NUMBER			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS										A3-SIZE		87831		SEE TABLE	

10	9	8	7	6	5	4	3	2	1										
4 CIRCUITS																			
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION								
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H	
4	87831-0419	N.A	N.A	1	N.A	N.A	YES	N.A	N.A	N.A	2.00	4.85	6.65	5.00	N.A	N.A	2.50	3.60±0.20	
	87831-0420	N.A	N.A	2															
	87831-0421	N.A	N.A	3															
	87831-0436	N.A	N.A	4															
	87831-0441	87831-0456	N.A	2	N.A	YES	YES	N.A	N.A	N.A						1.00	2.50		
	87831-0442	N.A	87831-5565	3															2.50
	87831-5141	N.A	N.A	2	N.A	YES	YES	N.A	N.A	3.50									
	87831-5142	N.A	N.A	3															
	87831-6141	N.A	N.A	2	N.A	YES	YES	N.A	N.A								2.50		
	87831-6142	N.A	N.A	3															3.60 ^{+0.15} -0.10
	87831-0443	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A									
	87831-0444	N.A	N.A	3															

PLATING OPTIONS:

1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.

2 - 0.38µm/15µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.

3 - 0.76µm/30µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTETIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.

4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.

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DIMENSION UNITS

mm

SCALE

NTS

GENERAL TOLERANCES
(UNLESS SPECIFIED)

	MM	INCH
4 PLACES	± 0	± 0
3 PLACES	± 0	± 0
2 PLACES	± 0.2	± 0
1 PLACE	± 0	± 0
0 PLACES	± 0	± 0
ANGULAR TOL	± 3 °	

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING

A3-SIZE

SERIES

87831

CURRENT REV DESC: Adding New Part Numbers

EC NO: CO-000042098

DRWN: Meghraj Boodagatti22-Apr-2026

CHK'D: Meghraj Boodagatti08-Jun-2026

APPR: Saravanakumar Murugesan08-Jun-2026

INITIAL REVISION:

DRWN: GMENARLY2015/04/15

APPR: KHLIM2015/06/29

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A25

PRODUCT CUSTOMER DRAWING

MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

SHEET NUMBER

3 OF 14

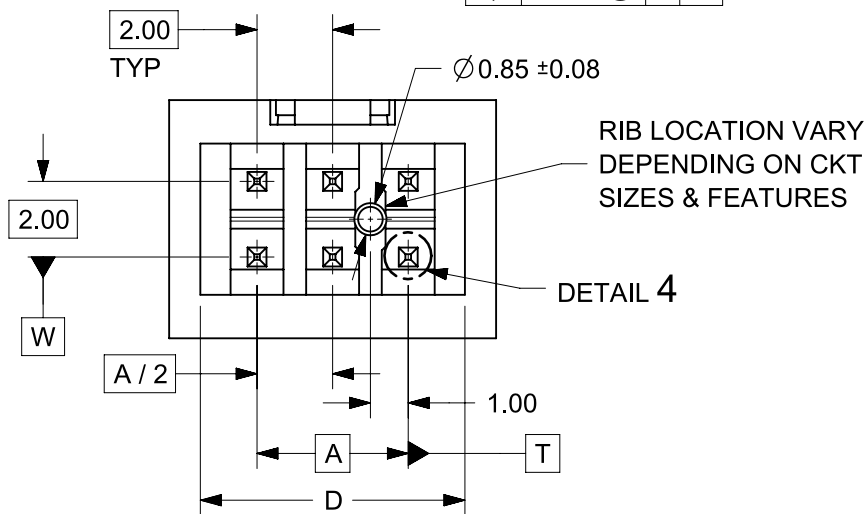
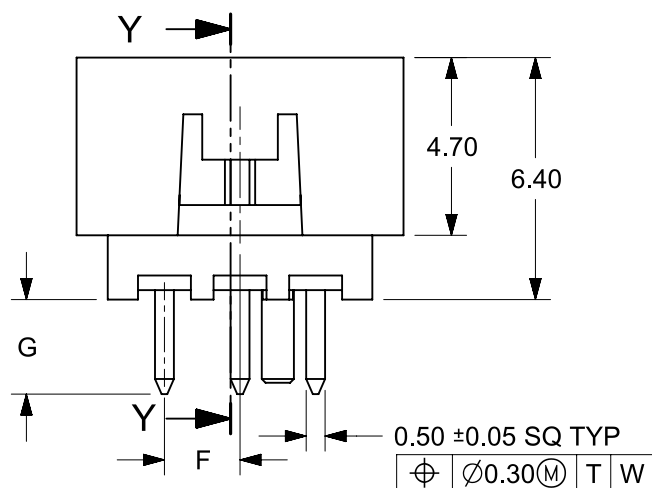
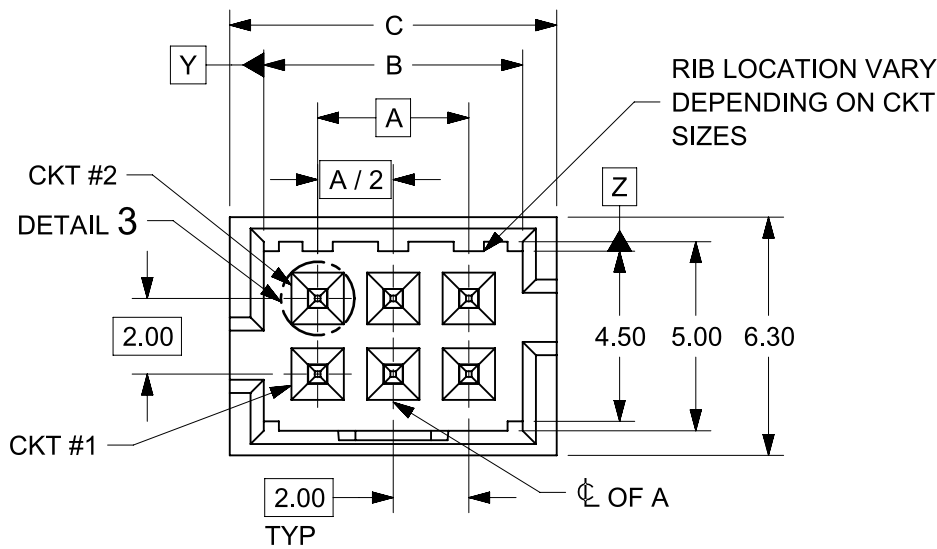
DOCUMENT STATUS

Production

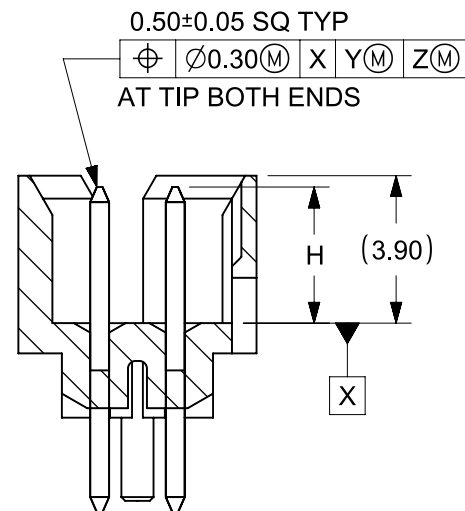
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08-Jun-202604:36:51

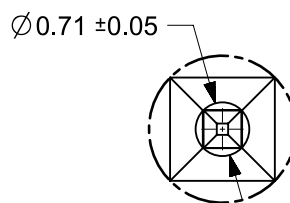
| 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |



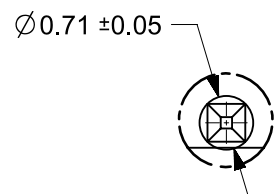
6 CIRCUITS



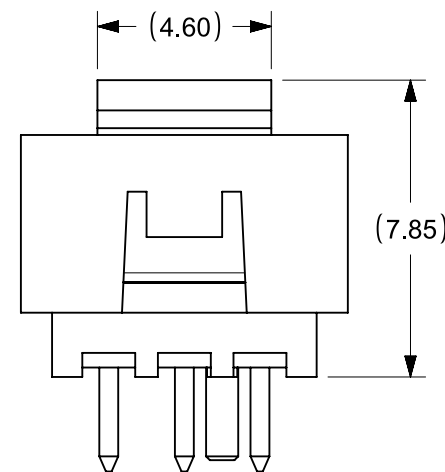
SECTION Y-Y



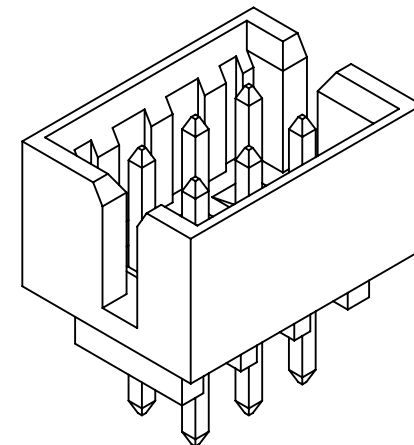
DETAIL 3



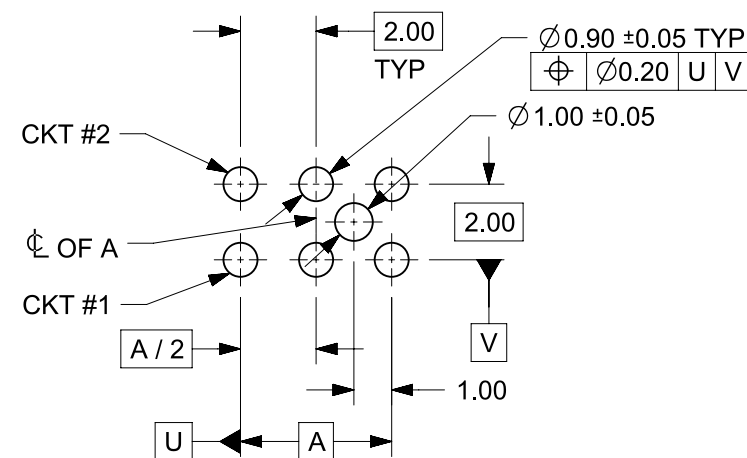
DETAIL 4



VIEW FOR
HEADER WITH CAP



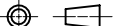
VIEW FOR HEADER WITH
ONLY DUAL SLOTS



RECOMMENDED PCB LAYOUT

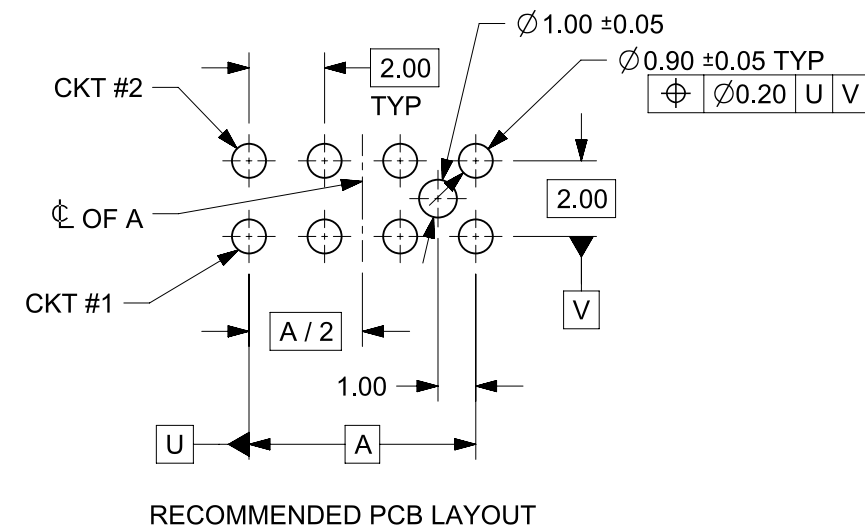
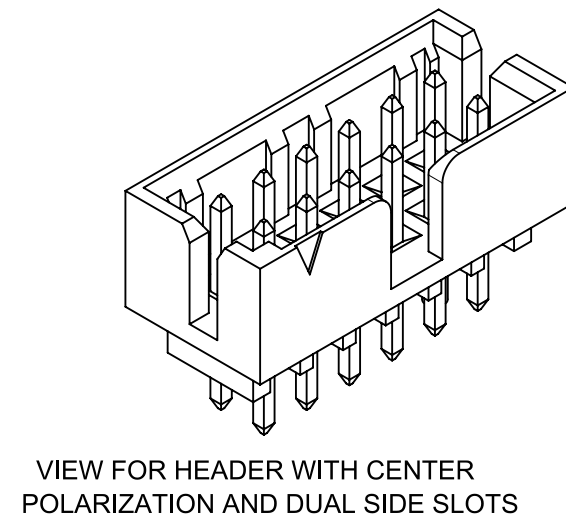
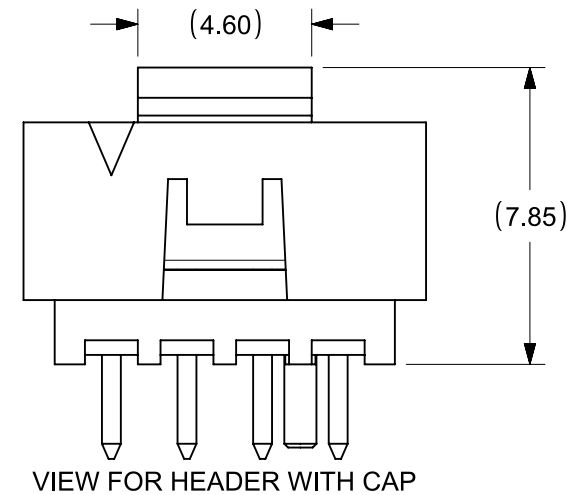
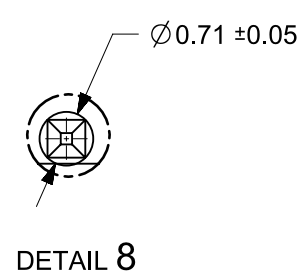
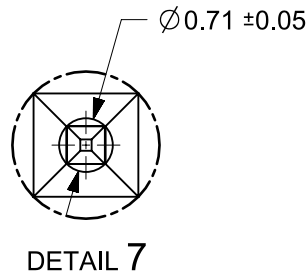
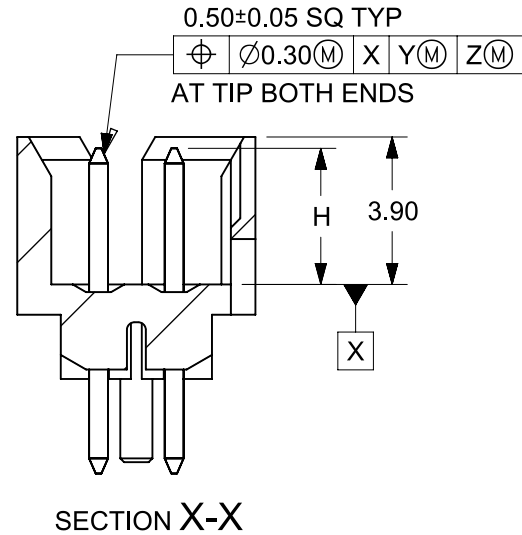
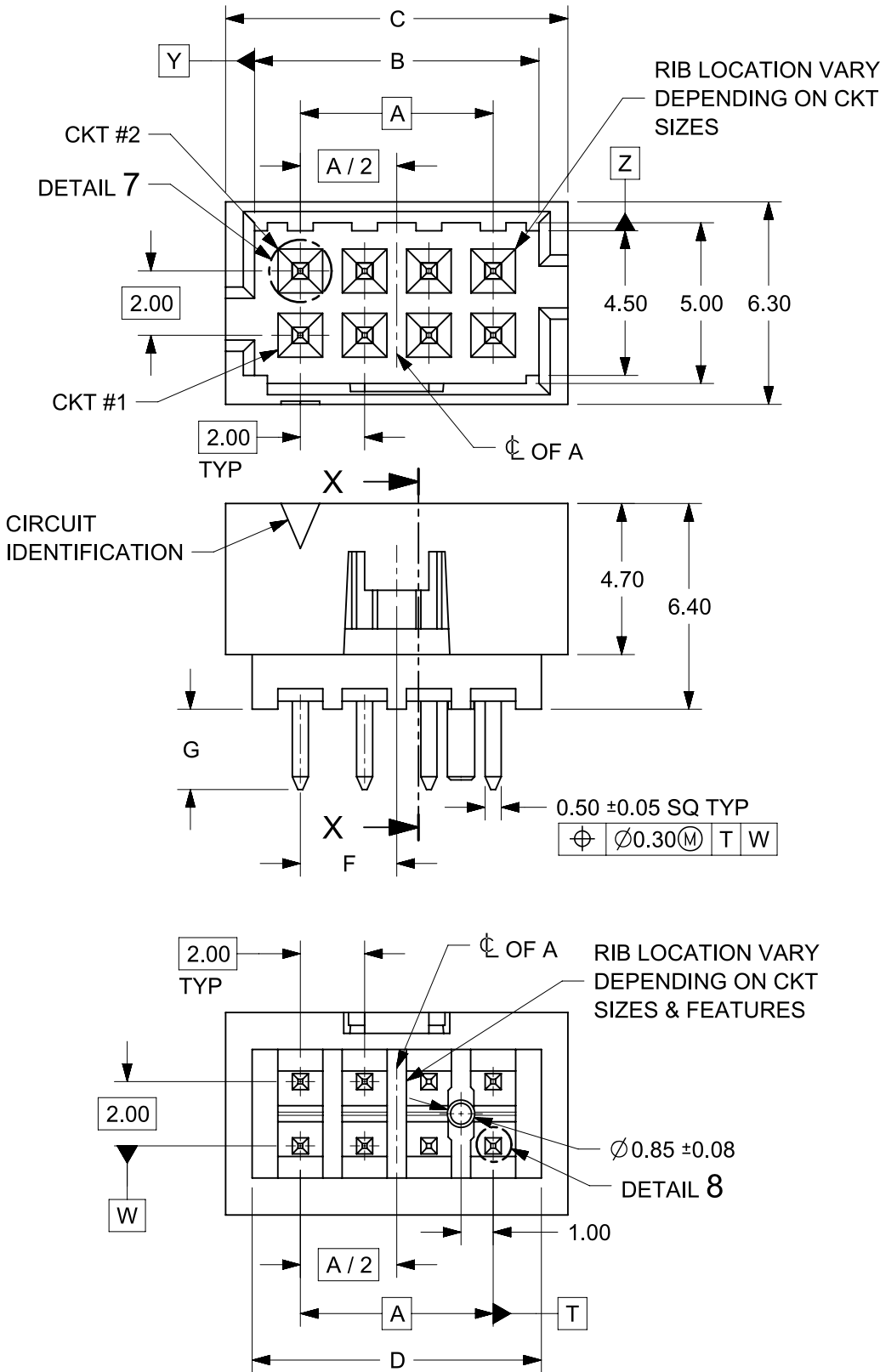
NOTES:

- MATERIALS:
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ PHOSPHOR BRONZE
- FINISHES: REFER TO PLATING OPTIONS
- PRODUCT SPECIFICATION: PS-87831-027
- PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
- MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

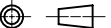
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex	
mm		NTS							
GENERAL TOLERANCES (UNLESS SPECIFIED)				MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER					
	MM	INCH							
4 PLACES	± 0	± 0		EC NO: CO-000042098 DRWN: Meghraj Boodagatti 22-Apr-2026 CHK'D: Meghraj Boodagatti 08-Jun-2026 APPR: Saravanakumar Murugesan 08-Jun-2026					
3 PLACES	± 0	± 0							
2 PLACES	± 0.2	± 0							
1 PLACE	± 0	± 0							
0 PLACES	± 0	± 0		PRODUCT CUSTOMER DRAWING DOCUMENT NUMBERSD-87831-0001DOC TYPEPSDDOC PART001REVISIONA25					
ANGULAR TOL ± 3 °									
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES	
				A3-SIZE		87831		MATERIAL NUMBER SEE TABLE	
								CUSTOMER GENERAL MARKET	
								SHEET NUMBER 4 OF 14	

10	9	8	7	6	5	4	3	2	1														
6 CIRCUITS																							
F	CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION											
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H				
E	6	87831-0619	N.A	N.A	1	N.A	N.A	YES	N.A	N.A	N.A	4.00	6.85	8.65	7.00	N.A	N.A	2.50	3.60±0.20				
		87831-0620	N.A	N.A	2																		
		87831-0621	N.A	N.A	3																		
		87831-0636	N.A	N.A	4																		
D	87831-0628	N.A	N.A	2	N.A	N.A	YES	N.A	N.A	YES	N.A						N.A	2.50					
	87831-0629	N.A	N.A	3																			
	87831-0641	N.A	87831-0647	2	N.A	YES	YES	N.A	N.A	N.A	2.00									2.50			
	87831-0642	N.A	87831-5552	3																			
	87831-5241	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A							2.80						
	87831-5242	N.A	N.A	3																			
	87831-6241	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A	2.50												
	87831-6242	N.A	N.A	3																			
	87831-0643	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A							3.60 ^{+0.15} -0.10						
	87831-0644	N.A	N.A	3																			
	87831-0645	N.A	N.A	2	N.A	YES	N.A	YES	N.A	N.A	2.50												
	87831-0646	N.A	N.A	3																			
C	87831-0632	N.A	N.A	2	N.A	YES	YES	N.A	N.A	YES							2.50	N.A	2.50	3.60±0.20			
	87831-5119	N.A	N.A	1	N.A	N.A	YES	N.A	YES	N.A													
	87831-5121	N.A	N.A	3																			
B		87831-5136	N.A	N.A	4																		
	PLATING OPTIONS:																						
	1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL. 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.																						
A	DOCUMENT STATUS		Production	RELEASE DATE	08-Jun-2026	04:36:51													THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
	FORMAT: Molex-aga-master-ib-prod-A3 REVISION: E1 DATE: 2021/05/01		9	8	7	6	5	4	3	2	1	DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex			
												GENERAL TOLERANCES (UNLESS SPECIFIED)								MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
														MM		INCH							
												4 PLACES		±	0	±	0						
												3 PLACES		±	0	±	0						
												2 PLACES		±	0.2	±	0						
												1 PLACE		±	0	±	0						
												0 PLACES		±	0	±	0						
												ANGULAR TOL		±	3 °								
												DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION		DRAWING	SERIES	MATERIAL NUMBER	CUSTOMER	SHEET NUMBER			
																A3-SIZE	87831	SEE TABLE	GENERAL MARKET	5 OF 14			

8 TO 12 CIRCUITS



- NOTES:
- MATERIALS:
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ PHOSPHOR BRONZE
 - FINISHES: REFER TO PLATING OPTIONS
 - PRODUCT SPECIFICATION: PS-87831-027
 - PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
 - MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																	
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER PRODUCT CUSTOMER DRAWING <table><tr><td>DOCUMENT NUMBER</td><td>DOC TYPE</td><td>DOC PART</td><td>REVISION</td></tr><tr><td>SD-87831-0001</td><td>PSD</td><td>001</td><td>A25</td></tr></table>		DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION	SD-87831-0001	PSD	001	A25
DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION														
SD-87831-0001	PSD	001	A25														
mm		NTS															
GENERAL TOLERANCES (UNLESS SPECIFIED)																	
		MM	INCH														
4 PLACES	±	0	± 0														
3 PLACES	±	0	± 0														
2 PLACES	±	0.2	± 0														
1 PLACE	±	0	± 0														
0 PLACES	±	0	± 0														
ANGULAR TOL ± 3 °				EC NO: CO-000042098		22-Apr-2026											
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				DRWN: Meghraj Boodagatti		08-Jun-2026											
				CHK'D: Meghraj Boodagatti		08-Jun-2026											
				APPR: Saravanakumar Murugesan		08-Jun-2026											
				INITIAL REVISION:													
				DRWN: GMENARLY		2015/04/15											
				APPR: KHLIM		2015/06/29											
THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER									
		A3-SIZE		87831		SEE TABLE		GENERAL MARKET									
						SHEET NUMBER		6 OF 14									

10	9	8	7	6	5	4	3	2	1															
8 CIRCUITS																								
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION													
					DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H						
8	87831-0819	N.A	N.A	1	N.A	N.A	YES	N.A	YES	N.A	6.00	8.85	10.65	9.00	N.A	N.A	2.50	3.60±0.20						
	87831-0820	N.A	N.A	2																				
	87831-0821	N.A	N.A	3																				
	87831-0836	N.A	N.A	4																				
	87831-0828	N.A	N.A	2	N.A	N.A	YES	N.A	YES	YES						N.A	2.50		3.00	N.A	2.50	3.60±0.20		
	87831-0829	N.A	N.A	3																				
	87831-0841	N.A	87831-5551	2																				
	87831-0842	N.A	N.A	3	N.A	YES	YES	N.A	N.A	YES													N.A	2.50
	87831-5841	N.A	N.A	2																				
	87831-5441	N.A	N.A	2																				
	87831-5442	N.A	N.A	3	N.A	YES	YES	N.A	N.A	N.A						N.A	2.80			3.60±0.15 -0.10				
	87831-5541	N.A	N.A	2																				
	87831-5542	N.A	N.A	3																				
	87831-5741	N.A	N.A	2	N.A	YES	YES	N.A	N.A	N.A											N.A		2.50	3.60±0.15 -0.10
	87831-0832	N.A	N.A	2																				
	87831-0843	N.A	N.A	2																				
	87831-0844	N.A	N.A	3	N.A	YES	N.A	YES	N.A	N.A						N.A	2.50							
	87831-0845	N.A	N.A	2																				
87831-0846	N.A	N.A	3																					

PLATING OPTIONS:

1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.

2 - 0.38µm/15µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.

3 - 0.76µm/30µin GOLD IN CONTACT AREA AND
1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER
1.27µm/50µin MIN. NICKEL OVERALL.

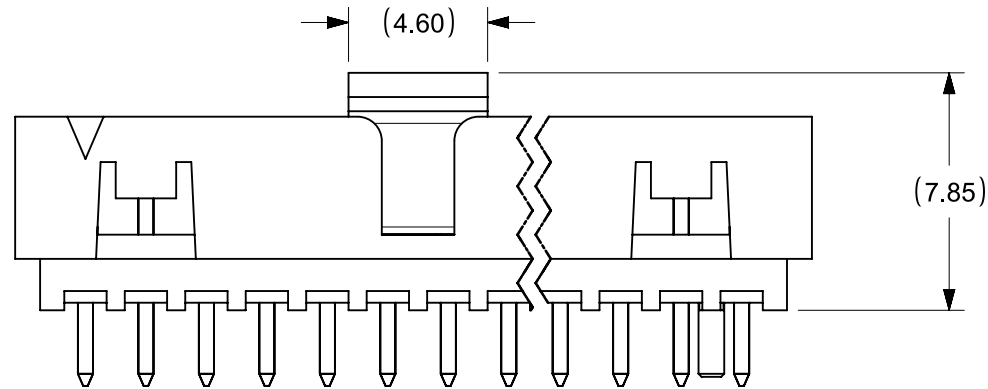
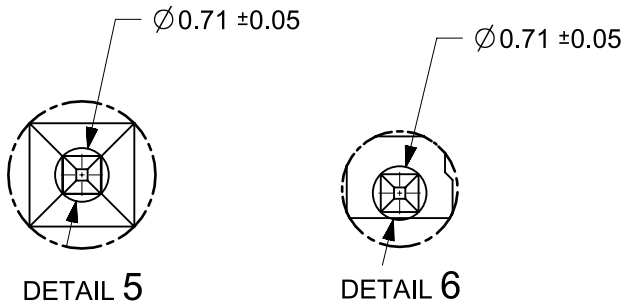
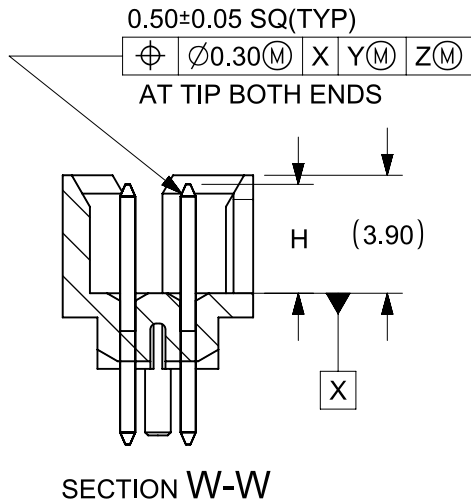
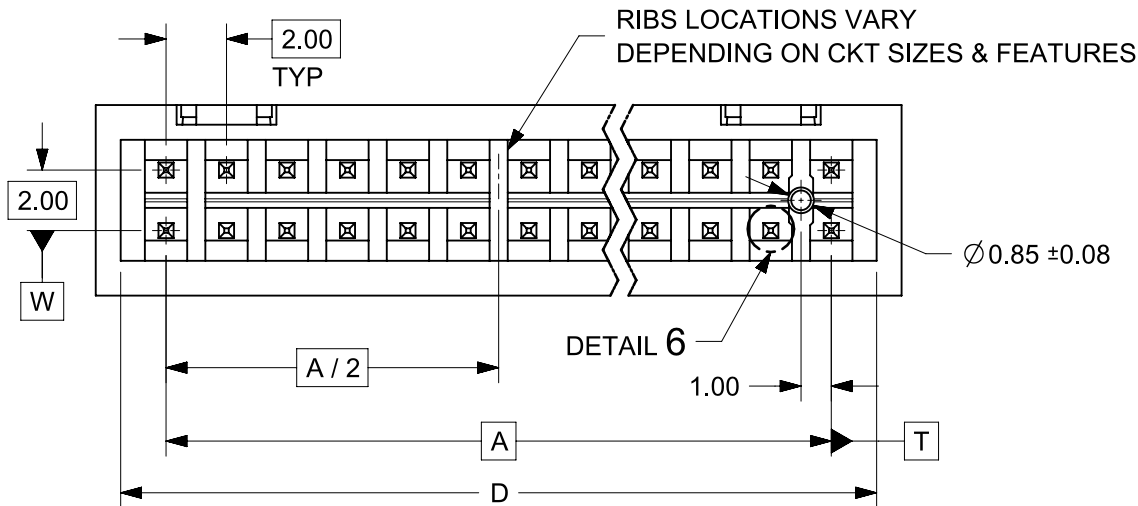
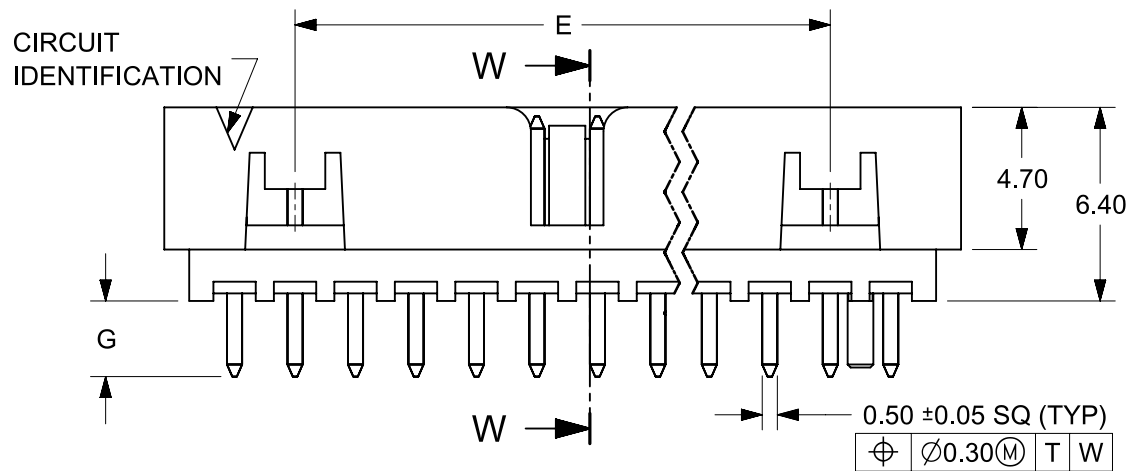
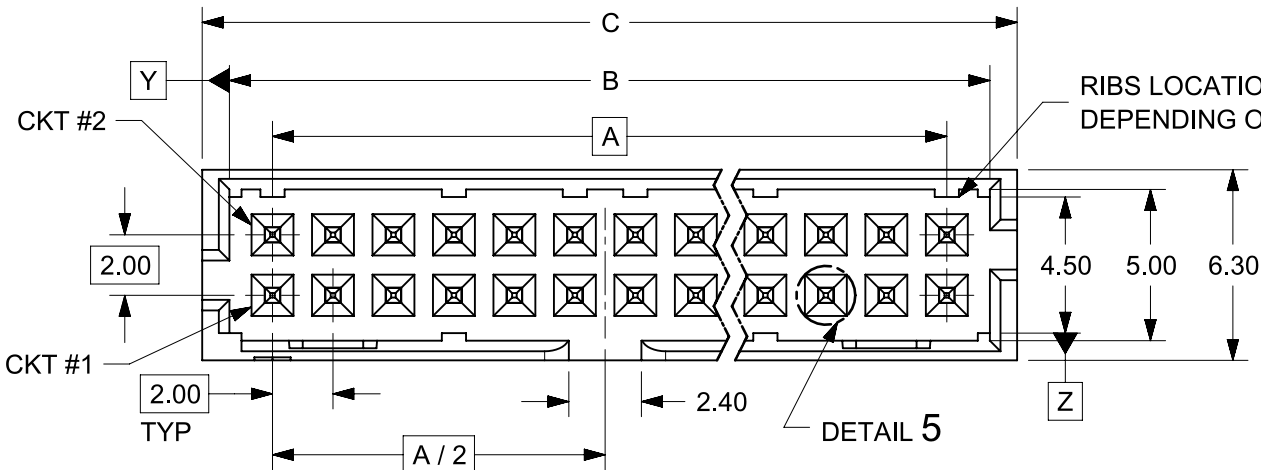
4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION														
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				moLEX MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER						
mm		NTS												
GENERAL TOLERANCES (UNLESS SPECIFIED)				PRODUCT CUSTOMER DRAWING										
		MM	INCH	EC NO: CO-000042098				DOCUMENT NUMBER				DOC TYPE	DOC PART	REVISION
4 PLACES	± 0	± 0		DRWN: Meghraj Boodagatti 22-Apr-2026				SD-87831-0001				PSD	001	A25
3 PLACES	± 0	± 0		CHK'D: Meghraj Boodagatti 08-Jun-2026										
2 PLACES	± 0.2	± 0		APPR: Saravanakumar Murugesan 08-Jun-2026										
1 PLACE	± 0	± 0		INITIAL REVISION:										
0 PLACES	± 0	± 0		DRWN: GMENARLY 2015/04/15										
ANGULAR TOL			± 3 °	APPR: KHLIM 2015/06/29										
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING	SERIES	MATERIAL NUMBER		CUSTOMER		SHEET NUMBER		
						A3-SIZE	87831	SEE TABLE		GENERAL MARKET		7 OF 14		

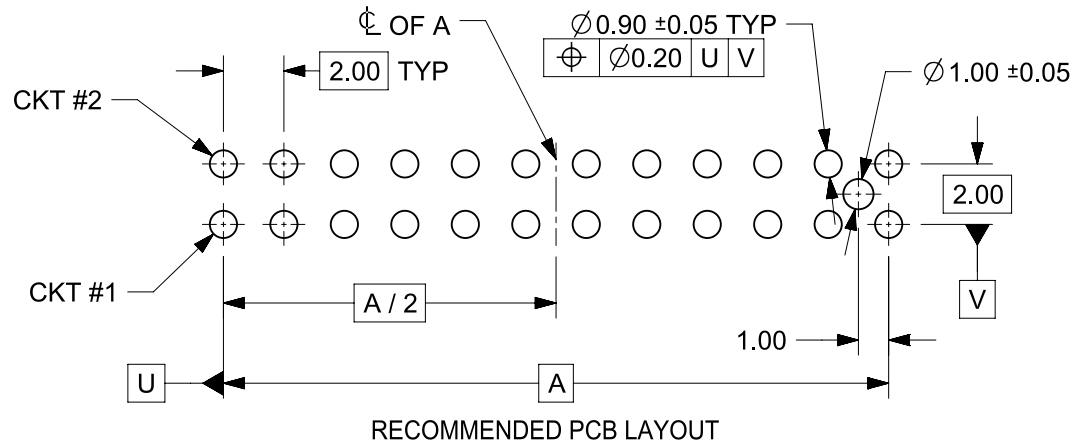
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10	9	8	7	6	5	4	3	2	1												
10 TO 12 CIRCUITS																					
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	ASSY P/N WITHOUT CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		#####	PEG	DIMENSION									
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H		
10	87831-1019	N.A	N.A		1	N.A	N.A	YES	N.A	YES	N.A	8.00	10.85	12.65	11.00	N.A	N.A	2.50	3.60±0.20		
	87831-1020	N.A	87831-1070		2																
	87831-1021	N.A	87831-5562		3																
	87831-1036	N.A	N.A		4																
	87831-1010	87831-1030	87831-5561		2	N.A	N.A	YES	N.A	YES	N.A							4.00		2.50	
	87831-1011	N.A	N.A		3																
	87831-1028	N.A	N.A		2	N.A	N.A	YES	N.A	YES	YES										2.50
	87831-1029	N.A	87831-5557		3																
	87831-1035	N.A	N.A		3	N.A	N.A	YES	N.A	YES	YES						2.50				
	87831-1041	N.A	N.A		2																
	87831-1042	N.A	87831-5553		3	N.A	YES	YES	N.A	N.A	N.A							2.50			
	87831-1032	N.A	N.A		2																
	87831-1043	N.A	N.A		2	N.A	YES	N.A	YES	N.A	N.A						2.50				
	87831-1044	N.A	N.A		3																
	87831-1045	N.A	N.A		2	N.A	YES	N.A	YES	N.A	YES							2.50			
	87831-1046	N.A	N.A		3																
12	87831-1219	N.A	N.A		1	N.A	N.A	YES	N.A	YES	N.A	10.00	12.85	14.65	13.00	N.A	N.A		2.50	3.60±0.20	
	87831-1220	N.A	87831-5556		2																
	87831-1221	N.A	N.A		3																
	87831-1236	N.A	N.A		4																
	87831-1228	N.A	N.A		2	N.A	N.A	YES	N.A	YES	YES							5.00	2.50		
	87831-1229	N.A	87831-5558		3																
	87831-1258	N.A	87831-5567		2																
	87831-1241	N.A	N.A		2	N.A	YES	YES	N.A	N.A	N.A										2.50
	87831-1242	N.A	N.A		3																
	87831-1255	87831-1256	N.A		2	N.A	YES	YES	N.A	N.A	N.A						2.50				
	87831-1232	N.A	N.A		2																
	87831-1243	N.A	N.A		2	N.A	YES	N.A	YES	N.A	N.A							2.50			
	87831-1244	N.A	N.A		3																
	87831-1245	N.A	N.A		2	N.A	YES	N.A	YES	N.A	YES						2.50				
	87831-1246	N.A	N.A		3																
	PLATING OPTIONS:																				
1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																					
2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																					
3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																					
4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.																					
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																					
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex													
mm		NTS																			
GENERAL TOLERANCES (UNLESS SPECIFIED)																					
		MM	INCH																		
4 PLACES	± 0	± 0		EC NO: CO-000042098				22-Apr-2026 08-Jun-2026 08-Jun-2026													
3 PLACES	± 0	± 0		DRWN: Meghraj Boodagatti																	
2 PLACES	± 0.2	± 0		CHK'D: Meghraj Boodagatti																	
1 PLACE	± 0	± 0		APPR: Saravanakumar Murugesan																	
0 PLACES	± 0	± 0		INITIAL REVISION:				DOCUMENT NUMBER				DOC TYPE	DOC PART	REVISION							
ANGULAR TOL ± 3 °				DRWN: GMENARLY				2015/04/15				SD-87831-0001				PSD	001	A25			
				APPR: KHLIM				2015/06/29													
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER							
						A3-SIZE		87831		SEE TABLE		GENERAL MARKET		8 OF 14							
DOCUMENT STATUS		Production	RELEASE DATE	08-Jun-2026	04:36:51																
9		8		7		6		5		4		3		2		1					
9		8		7		6		5		4		3		2		1					

14 TO 50 CIRCUITS



VIEW FOR HEADER WITH CAP



- NOTES:
- MATERIALS:
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK
PIN: 0.50mm SQ PHOSPHOR BRONZE
 - FINISHES: REFER TO PLATING OPTIONS
 - PRODUCT SPECIFICATION: PS-87831-027
 - PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
 - MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: Adding New Part Numbers		molex			
DIMENSION UNITS		SCALE		MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER			
mm		NTS		PRODUCT CUSTOMER DRAWING			
GENERAL TOLERANCES (UNLESS SPECIFIED)		MM		DOCUMENT NUMBER			
		INCH		SD-87831-0001			
4 PLACES		± 0		PSD			
3 PLACES		± 0		001			
2 PLACES		± 0.2		A25			
1 PLACE		± 0					
0 PLACES		± 0					
ANGULAR TOL		± 3°					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION		DRAWING		SHEET NUMBER	
		A3-SIZE		87831		9 OF 14	
				SERIES		CUSTOMER	
				MATERIAL NUMBER		GENERAL MARKET	
				SEE TABLE			

10		9		8		7		6		5		4		3		2		1		
22 TO 30 CIRCUITS																				
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	ASSY P/N WITHOUT CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATION	PEG	DIMENSION								
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H	
22	87831-2219	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	20.00	22.85	24.65	23.00	16.00	N.A	2.50	3.60±0.20	
	87831-2220	N.A	N.A	N.A	2															
	87831-2221	N.A	N.A	N.A	3															
	87831-2236	N.A	N.A	N.A	4															
	87831-2228	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50		
	87831-2229	N.A	N.A	N.A	3															
24	87831-2419	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	22.00	24.85	26.65	25.00	18.00	N.A	2.50	3.60±0.20	
	87831-2420	N.A	N.A	87831-7420	2															
	87831-2421	N.A	N.A	N.A	3															
	87831-2436	N.A	N.A	N.A	4															
	87831-2428	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50		
	87831-2429	N.A	N.A	N.A	3															
	87831-2435	N.A	N.A	N.A	3															
	87831-2445	N.A	N.A	N.A	3															
	87831-2410	N.A	N.A	N.A	2													YES		N.A
26	87831-2619	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	24.00	26.85	28.65	27.00	20.00	N.A	2.50	3.60±0.20	
	87831-2620	87831-2630	87831-5555	N.A	2															
	87831-2621	N.A	N.A	N.A	3															
	87831-2636	N.A	N.A	N.A	4															
	87831-2628	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50		
	87831-2629	N.A	N.A	N.A	3															
	87831-2610	N.A	N.A	N.A	2															YES
28	87831-2819	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	26.00	28.85	30.65	29.00	22.00	N.A	2.50	3.60±0.20	
	87831-2820	N.A	N.A	N.A	2															
	87831-2821	N.A	N.A	N.A	3															
	87831-2836	N.A	N.A	N.A	4															
	87831-2828	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50		
	87831-2829	N.A	N.A	N.A	3															
30	87831-3019	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	28.00	30.85	32.65	31.00	24.00	N.A	2.50	3.60±0.20	
	87831-3020	N.A	N.A	N.A	2															
	87831-3021	N.A	N.A	N.A	3															
	87831-3036	N.A	N.A	N.A	4															
	87831-3028	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50		
	87831-3029	N.A	N.A	N.A	3															
	87831-3035	N.A	N.A	N.A	3															
	87831-3037	N.A	N.A	N.A	3															
	87831-3010	87831-3030	87831-3050	N.A	2													YES		N.A
PLATING OPTIONS:																				
1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																				
2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																				
3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																				
4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.																				
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REVISION: E1		9		8		7		6		5		4		3		2		1		
DATE: 2021/05/01		9		8		7		6		5		4		3		2		1		

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DIMENSION UNITS

mm

SCALE

NTS

GENERAL TOLERANCES (UNLESS SPECIFIED)

	MM	INCH
4 PLACES	± 0	± 0
3 PLACES	± 0	± 0
2 PLACES	± 0.2	± 0
1 PLACE	± 0	± 0
0 PLACES	± 0	± 0
ANGULAR TOL	± 3 °	

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

CURRENT REV DESC: Adding New Part Numbers

EC NO: CO-000042098

DRWN: Meghraj Boodagatti

CHK'D: Meghraj Boodagatti

APPR: Saravanakumar Murugesan

22-Apr-2026

08-Jun-2026

08-Jun-2026

INITIAL REVISION:

DRWN: GMENARLY

APPR: KHLIM

2015/04/15

2015/06/29

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A25

PRODUCT CUSTOMER DRAWING

MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

SHEET NUMBER

11 OF 14

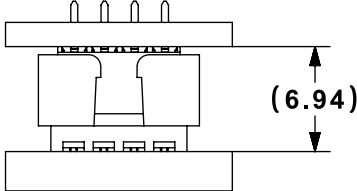
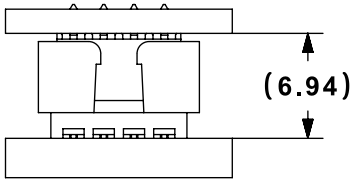
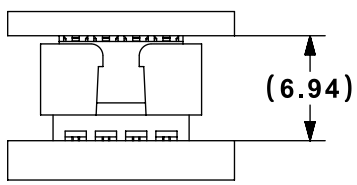
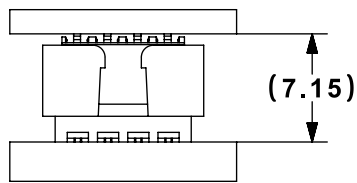
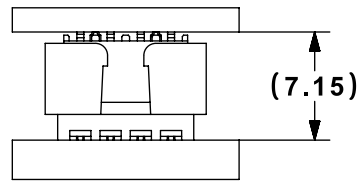
A3-SIZE

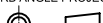
87831

[illegible]

10	9	8	7	6	5	4	3	2	1										
42 TO 50 CIRCUITS																			
CKT SIZE	ASSY P/N WITHOUT CAP IN TUBE	ASSY P/N WITH CAP IN TUBE	ASSY P/N WITH CAP IN T&R	ASSY P/N WITHOUT CAP IN T&R	PLATING OPTIONS	FRICTION LOCKS		SIDE SLOTS		CENTER POLARIZATI ON	PEG	DIMENSION							
						DUAL	CENTER	DUAL	SINGLE			A	B	C	D	E	F	G	H
42	87831-4219	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	40.00	42.85	44.65	43.00	36.00	N.A	2.50	3.60±0.20
	87831-4220	N.A	N.A	87831-4230	2														
	87831-4221	N.A	N.A	N.A	3														
	87831-4236	N.A	N.A	N.A	4														
	87831-4228	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-4229	N.A	N.A	N.A	3														
44	87831-4419	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	42.00	44.85	46.65	45.00	38.00	N.A	2.50	3.60±0.20
	87831-4420	N.A	N.A	N.A	2														
	87831-4421	N.A	N.A	N.A	3														
	87831-4436	N.A	N.A	N.A	4														
	87831-4428	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-4429	N.A	N.A	N.A	3														
	87831-4435	N.A	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							3.50	
46	87831-4619	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	44.00	46.85	48.65	47.00	40.00	N.A	2.50	3.60±0.20
	87831-4620	N.A	N.A	N.A	2														
	87831-4621	N.A	N.A	N.A	3														
	87831-4636	N.A	N.A	N.A	4														
	87831-4628	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-4629	N.A	N.A	N.A	3														
48	87831-4819	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	46.00	48.85	50.65	49.00	42.00	N.A	2.50	3.60±0.20
	87831-4820	N.A	N.A	N.A	2														
	87831-4821	N.A	N.A	N.A	3														
	87831-4836	N.A	N.A	N.A	4														
	87831-4828	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-4829	N.A	N.A	N.A	3														
50	87831-5019	N.A	N.A	N.A	1	YES	N.A	YES	N.A	YES	N.A	48.00	50.85	52.65	51.00	44.00	N.A	2.50	3.60±0.20
	87831-5020	N.A	N.A	N.A	2														
	87831-5021	N.A	N.A	N.A	3														
	87831-5036	N.A	N.A	N.A	4														
	87831-5028	N.A	N.A	N.A	2	YES	N.A	YES	N.A	YES	YES							2.50	
	87831-5029	N.A	N.A	N.A	3														
	87831-5035	N.A	N.A	N.A	3	YES	N.A	YES	N.A	YES	YES							3.50	
PLATING OPTIONS:																			
1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																			
2 - 0.38µm/15µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																			
3 - 0.76µm/30µin GOLD IN CONTACT AREA AND 1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27µm/50µin MIN. NICKEL OVERALL.																			
4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.																			
A																			
DOCUMENT STATUS Production RELEASE DATE 08-Jun-2026 04:36:51																			
FORMAT: Molex-4pin-master-4pin-prod-A3 REVISION: E1 DATE: 2021/05/01																			
10	9	8	7	6	5	4	3	2	1										

BOARD TO BOARD (BTB) DISTANCE

HEADER	MATES WITH (RECEPTACLE)	BTB DIST.	PICTORIAL VIEW
87831	79107	6.94	
	78787	6.94	
	79108	6.94	
	79109	7.15	
	78788	7.15	

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																	
DIMENSION UNITS		SCALE		CURRENT REV DESC: Adding New Part Numbers				molex									
mm		NTS															
GENERAL TOLERANCES (UNLESS SPECIFIED)								MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER									
		MM	INCH	EC NO: CO-000042098 DRWN: Meghraj Boodagatti 22-Apr-2026 CHK'D: Meghraj Boodagatti 08-Jun-2026 APPR: Saravanakumar Murugesan 08-Jun-2026				PRODUCT CUSTOMER DRAWING									
4 PLACES	±	0	±											0			
3 PLACES	±	0	±					0									
2 PLACES	±	0.2	±					0									
1 PLACE	±	0	±					0									
0 PLACES	±	0	±					0									
ANGULAR TOL ± 3 °				INITIAL REVISION:				DOCUMENT NUMBER		DOC TYPE		DOC PART		REVISION			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION				DRAWING		SERIES		MATERIAL NUMBER		CUSTOMER		SHEET NUMBER	
				A3-SIZE		87831		SD-87831-0001				PSD		001		A25	
												GENERAL MARKET		14 OF 14			